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ABSTRACT

This paper reports results of a research study linked to the effort of preparing teachers involved in literacy programs for a large adult population of non-native speakers of English in the state of Texas. Because of a state-initiated plan in Texas, the "Indicators of Program Quality for Adult Education and Literacy," extensive professional development for instructional staff involved in adult education and literacy became crucial, especially for English-as-a-Second-Language teachers. Two objectives of the study were: 1) assessment of the usefulness and effectiveness of professional development programs and 2) investigation of attitudinal change resulting from interactive, hands-on, and experiential staff development modeling indicators of program quality using a process transformative approach. Professional development consists of several formats tailored to local program needs. Issues of second language acquisition, thinking and problem solving, reading, and process writing were considered in the context of learner-centered participatory instruction engaging learners in meaningful interaction in both oral and written English. Findings from the study indicate participants found the sessions highly useful and effective and that significant attitudinal changes occurred in favor of an interactive process approach to critical literacy for adults. Contains 13 references. (Adjunct ERIC Clearinghouse for ESL Literacy Education/JL)

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CLASSROOM INTERACTION FOR ADULT LITERACY

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Abstract. This paper reports results of a research study linked to the practical effort of preparing teachers involved in English literacy programs for a large adult population of non-native speakers of English in the state of Texas. As a result of the *Indicators of Program Quality* adopted for the Texas State Plan for Adult Education and Literacy, extensive professional development for instructional staff became crucial. For ESL teachers in particular, an understanding of basic notions about second language learning, both theory and practice, is critical for planning and implementing quality programs which promote students' ability to analyze, understand, deal with, and change when necessary the reality of their own lives. To meet these needs the University of Texas at San Antonio has conducted a multi-year project funded by the Texas Education Agency to provide professional development for teachers throughout the state. Results for a two-year period are reported here. Two objectives of the study were: 1) assessment of the usefulness and effectiveness of professional development programs and 2) investigation of attitudinal change resulting from interactive, hands-on and experiential staff development modeling indicators of program quality using a process, transformative approach. Professional development consisted of several formats tailored to local program needs. Issues of second language acquisition, thinking and problem solving, reading, and process writing were considered in the context of learner-centered participatory instruction engaging learners in meaningful interaction in both oral and written English. Findings from this study indicate that participants found the sessions to be highly useful and effective and that significant attitudinal changes occurred in favor of an interactive process approach to critical literacy for adults.

Adult literacy over the past decade has received unprecedented attention from many different sectors of society in the United States. Changing economic, demographic, cultural, and labor-market forces have focused attention on the need for adults with adequate literacy skills - reading, writing, and mathematical - to meet the needs of the changing workplace. At an historic education summit held in 1990 members of the National Governors' Association established a set of National Education Goals for the twenty-first century. As adopted by members of the association, one of the eight goals states:

> By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Background on Adult Literacy in the U.S. and Texas

Although concerted efforts have been made in realization of the goal, at the mid-point between adoption of the goals in 1990 and the target year 2000, analysis of data published in 1995 reveals that, in spite of increased participation in adult education, the gap has widened between adults who have

completed education at the high school level or less and those who have additional postsecondary education or technical training (National Education Goals Report 1995). In other words, the goal is not being met.

The most detailed portrait of adult literacy in the United States is the National Adult Literacy Survey (NALS), a project funded by the U.S. Department of Education and directed by Kirsch and his colleagues (1993). This study found that approximately 50 to 94 million of the 191 million adults in the U.S. could read and write only at the two lowest levels of the five levels established for measuring English literacy. While possibly possessing some basic literacy skills, adults scoring at levels one and two do not indicate that they can perform complex literacy tasks needed for competing successfully in a global economy and meeting the national goal set forth for adult literacy (National Education Goals Report 1995). The overall picture is that nearly half of all adults in the United States read and write at the lowest levels of English proficiency.

Concurrently with the NALS study, each of the 50 states was invited to take part in state-level studies (SALS). Texas was one of 11 states electing to participate. The *Adult Literacy in Texas* (Jenkins & Kirsch, 1994) report shows results of the SALS study in which a random sampling selected to represent the 12.7 million adults in the state participated in the study. Taken together, the NALS and state surveys represent the most comprehensive database ever assembled on adult literacy in the United States and show that the need for adult literacy development is extensive. Of the Texas participants, 27 percent reported being either child bilinguals or speaking a language other than English before beginning their schooling. The majority of this population speaks Spanish as a home language. In actual population numbers, 3.5 million adults in Texas performed at the lowest literacy range in the SALS study and 3 to 3.4 million individuals at the second lowest level of proficiency, higher percentages than adults nationwide. Of this population, many are English as a second language (ESL) users.

Definitions of Literacy

Traditional definitions of literacy have generally focused on decoding and comprehending printed text, usually with emphasis on a discrete skills approach. From a newer view, Au (1993) offers a definition that incorporates the elements of both the ability and the willingness to use reading and writing as well as speaking and listening to construct meaning from written text through interaction among the reader, the text, and the social context. This view of literacy as tapping into constructive, creative processes moves away from the traditional mechanistic, skill approach. A traditional approach, however, is still widely practiced in many adult programs. Nevertheless, perspectives on literacy are increasingly being shaped by economic, social, political, and cultural forces. In terms of adult education, literacy is no longer defined as a simple dichotomy between literate and illiterate but rather as a literacy continuum that expands as persons gain experience with different types of literacies (Crandall & Imel, 1991). Wrigley (1993) points out that this continuum may expand in a variety of ways, including functional literacy using everyday tasks, sociocultural literacy for understanding how literacy differs among groups for a variety of purposes, expressive literacy used in recording ideas, thoughts, feelings in personal experience, and critical literacy used to examine and act on

circumstances in one's own experience in a way that can transform social realities. The NALS Literacy Definition committee offered the following definition of literacy:

> Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential. (Kirsch and colleagues 1993:2)

The committee supported the concept that literacy is not a single skill applicable to all types of texts but rather an ordered set of proficiencies required to accomplish diverse types of tasks. As a result, the committee adopted three scales as a measure of literacy:

- Prose literacy: ability to understand and use information from texts such as news stories, poems, and fiction
- Document literacy: ability to locate and use information in forms such as job applications, bus schedules, maps, tables
- Quantitative literacy: ability to apply arithmetic operations embedded in printed materials such as order forms or checkbooks.

For purposes of this study, a distinction between functional and critical literacy is useful while at the same time taking into account the NALS scales. As Cummins and Sayers (1995) point out, functional literacy implies a level of reading and writing that allows individuals to function in social or employment situations with a focus on the products of educational systems and the needs of business. It is defined relative to social demands.

Critical literacy, however, is focused on the power of literacy to promote reflection and social action (Cummins, 1996; Cummins & Sayers, 1995). It reflects analytic abilities to think critically if individuals are to exercise their rights and responsibilities in a democratic society. It empowers individuals to become more socially involved in the democratic process and, for marginalized communities such as those often participating in adult ESL programs, to become more aware of their own cultural identity. Instruction that ignores students' cultural identity runs the risk of failure. Development of functional literacy as well as other types of literacy on the continuum have the chance to be most successful through a focus on critical literacy. For students to be able to relate curriculum content to their own experiences and those of their co-learners and to be able to analyze broader social issues relevant to their lives, they need the ability to think critically in ways crucial for meaningful participation in a democratic society. A transformative pedagogy in which students and teachers participate as co-learners (Auerbach 1996, 1992) is one way to approach development of critical literacy.

Indicators of Program Quality for Texas

As a requirement of the National Literacy Act of 1991, Texas, as did other states, developed indicators of program quality (IPQs) in consultation with a widely representative group of professionals in adult education. The Texas Quality Evaluation System Task Force for Adult Education and Literacy provided input into development and refinement of the *Indicators of Program Quality for Adult Education and Literacy Programs* (Texas Education Agency,

1993). The indicators developed for the Texas State Plan are congruent with the definition of literacy in the National Literacy Act of 1991:

> ...an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential.

This definition is reflected in the mission, goals, objectives and activities of the *Amendments to the Texas State Plan for Federal Adult Education Funding* (1992). Not only serving as input into development of the IPQs, it is broad enough to incorporate newer definitions of literacy found in the NALS study and, especially, that of critical literacy.

Before IPQs could be implemented, however, extensive professional development for teachers in adult literacy programs was needed. A goal to meet the need for professional development and teacher education relavant to that for adult literacy is another of the eight goals established by the National Governor's Association:

> By the year 2000, the Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.

The magnitude of educational needs with regard to meeting the adult literacy goal in the United States by the turn of the century places enormous demands on teacher resources, in particular ESL teachers who often have little or no formal background in teaching literacy to speakers of other languages.. To address literacy development for adult learners, teachers must have access to continuing professional development that will provide them with the understanding and skills for reaching an adult population that is increasingly diverse. Professional development, to be effective, is challenged to offer creative ways to help teachers engage adult learners in productive learning processes.

The Indicators of Program Quality adopted for Texas in 1993 have served as an impetus to move adult ESL literacy programs away from a behaviorist, teacher-centered, form-focused approach characteristic of traditional literacy programs. Adult learning theory supports the view that adult education is most effective when the curriculum is dynamic and learner-centered. This is differentiated from a 'banking' model of education in which the teacher deposits or transfers decontextualised sets of facts into passive students (McLaren and Leonard, 1993). The approach used in this study emphasizes an interactionist, participatory, holistic theoretical base for the development of critical literacy. For ESL teachers in particular, an understanding of basic notions about second language learning, both theory and practice, is critical for implementing quality programs.

IPQs in the area of curriculum and instruction address six major characteristics These features have formed the basis for teacher inservice programs using a variety of formats to help teachers both understand the IPQs and be able to implement them relevant to their learner population. IPQs for

the instructional component of adult education and literacy programs for Texas include:

· Adult Learning Theory. Instructional programs are built upon the language, experience, and prior knowledge of the learners and the notion that learners have input into making program choices. Flexible grouping is used to facilitate learner collaboration in interactive learning. Language modalities of listening, speaking, reading, and writing together with numeracy are integrated holistically. Learners understand the rationale for the curriculum based on theory and informed practice.

· Learner Centered and Participatory. Learners are actively involved in making decisions about curriculum content, which reflects their goals and needs as well as the diversity of the learner population. Problem-posing and problem-solving drawing on higher order cognitive skills are emphasized, using contexualized, authentic language.

· Functional Contexts. Curriculum content and materials are based on meaningful life situations for the learner. Specifically, curriculum is integrated and related to the whole person, taking into account affective, cognitive, and social dimensions.

· Thinking and Problem Solving. Instructional processes are designed to facilitate development of independent problem solvers and thinkers, making use of a range of strategies, including metacognitive, lifelong learning, collaborative learning, and critical thinking strategies.

· Dynamic Curriculum and Instruction. Regular adaptations and changes are made based on the most recently available formative and summative evaluations.

· Holistic Assessment. Consistent with an instructional approach which is holistic and learner-centered, assessment makes use of authentic language in a variety of approaches, including informal, on-going collaborative assessment of progress with students.

Professional Development Delivery Designs

The need to make a paradigm shift from a transmission model of education to a holistic, participatory one based on the IPQs led to the Texas Education Agency funding a statewide Adult Education Professional Development and Curriculum Consortium (AEPDCC). The consortium is made up of institutions of higher learning, regional adult education cooperative providers, and community based organizations. As a member of this consortium, The University of Texas at San Antonio (UTSA) provides professional development activities to facilitate shifts to interactive classrooms based on IPQ characteristics. Althugh UTSA has participated in a five-year project funded by the Texas Education Agency to provide professional development for teachers and administrators throughout the state, the study reported in this paper focuses on the two-year period of 1993, when the IPQs were first put into place, through 1995, the mid-point of the National Education Goals 2000 project.

Professional activities included a variety of formats, ranging from half-day to full-day sessions, multiple day institutes, collaborative institutes

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with AEPDCC members, technical assistance for program administrators and full-time teachers responsible for other instructional assistants in a program. The background of participants ranged from professionally certified teachers to teacher aides and community volunteers. Presenters for all professional development activities were educators holding a master's degree in Bicultural-Bilingual Studies with a concentration in English as a second language or graduate student candidates for the degree at UTSA. Presentations were conducted in a team format consisting minimally of two members in order to model an interactive approach for adult ESL literacy contexts.

For customized on-site training, a needs assessment was sent to the site before the professional development program in order to give direction for the training. Persons planning to participate then completed a feedback form providing qualitative data on their needs. After the session, presenters completed a site report giving details of the session that could be used to direct future training sessions for a particular group.

Regardless of the format, the content consistently related to the IPQs using a critical literacy approach involving collaborative group investigation and decision-making. A guiding principle for the sessions was that it should be consistent with features characteristic of a participatory approach. All sessions as a result were highly interactive with presenters providing a context for participants to experience this approach from a learner's point of view and come to an understanding of transformative teacher-learner power relations. The learner's experience and knowledge were taken as the starting point. A focus on meaning with instruction centered around themes drawn from participants' social reality led to multiple activities for group investigation and collaborative critical inquiry.

Evaluation Objectives of the Study

In light of presenting the IPQs in a context that can apply to crtical literacy, participants evaluated each session using an instrument approved by the Texas Education Agency to assess the following variables: 1) usefulness for the participant's specific instructional context, 2) depth and breadth of coverage of topics relevant to effective implementation of the IPQs, 3) knowledge demonstrated by the presenters in explaining and facilitating relevant notions for effective adult ESL literacy programs, and effectiveness in terms of clarity and modelling key notions that could transfer to the participant's own instructional setting. Using a Likert scale of 1 through 5, with 1 as low and 5 as high, participants rated each variable and then provided qualitative data through open-ended comments about aspects that were most helpful, least helpful, and recommendations for follow-up sessions.

Evaluation Findings

Table 1 provides a statistical analysis of a composite summary of evaluations based on the four variables of usefulness, depth/breadth, knowledge, and effectiveness for 100 professional development sessions conducted over the two-year period from 1993-95 for 1403 participants. Evaluation of the process and product of the sessions was consistently high.

Ethnographic data gathered from participant comments corroborated these findings. Comments showed strong gains in understanding issues related to a holistic, participatory approach for adult ESL literacy.

TABLE 1
Composite Summary of Evaluations for 1993-95
(100 Professional Development Inservices)
Means and Standard Deviation
N = 1403 Participants

Variable	Mean	Std.Dev.
Usefulness	4.5	0.8
Depth/Breadth	4.5	0.7
Knowledge	4.8	0.5
Effectiveness	4.7	0.6

Part of the evaluation design also included analysis of the frequency distribution of scores on the Likert scale on which participants assigned values ranging from 1 (low) to 5 (high) for each variable. Analysis of the frequency distribution of scores on a Likert scale of values ranging from 1 (low) to 5 (high) indicates that an overwhelming majority of the participants scored all four items of usefulness, depth / breadth, knowledge of presenters, and effectiveness of presentation at the highest level of 5. (See Appendix for graphs.)

In summary, results from evaluations of the 1403 participants indicate that the sessions were very useful that the inservice presentation was delivered in a way that explained how to incorporate IPQs in adult ESL literacy programs with a participatory approach orientation.

Attitudinal Changes from Interactive Professional Development

The second part of the study deals with assessing if any attitudinal change on the part of participants resulted from interactive, hands-on and experiential professional development activities modeling features of the IPQs. Specific items on an Assessmention of Participant Attitudies Instrument developed by the project to represent features associated with implementing a holistic, interactive, participatory approach for an ESL literacy program included the following:

Item 1: Understanding how adults learn a second language
Item 2: Using cooperative learning in the classroom
Item 3: Meeting needs of multi-level English proficiency class
Item 4: Facilitating development of critical thinking
Item 5: Using strategies for process writing
Item 6: Developing strategies for holistic language learning
Item 7: Using alternative, holistic assessment
Item 8: Using appropriate strategies for error correction
Item 9: Using communicative approaches for teaching grammar
Item 10: Using a constructivist approach for teaching reading

Before the session, participants rated their need for some help or new ideas on the ten items using a Likert scale ranging from 1, *No, not at all*, to 5, *Yes, definitely*. For a post-assessment score, participants rated the same items on a Likert scale in terms of the usefulness for them in their own teaching contexts. The pre- and post-asssessment scores were then compared to see if there were any change in participant attitudes towards basic notions associated with the IPQs in an interactive, participatory approach. Assessment incorporated both the process used in the instructional sessions and the product in terms of participant learning.

A total of 395 participants representing the diverse instructional settings in Texas completed the assessment instrument. Sessions evaluated were minimally six hours in length.

Comparison of Pre- and Post-Assessment Results for Years 1993-1995

Pre- and post-assessment results were analyzed using a two-tailed t-test for comparison of means scores on the ten item test. Table 2 summarizes findings from paired t-tests for each of the ten items used in determining the degree of attitudinal change for participants. The pre-assessment score is the X value, post-assessment score the Y.

Table 2
Pre- and Post-Assessment of Participant Attitudes
N = 395 Participants

Item	Mean X-Y	t Value	Prob.
Understanding how adults learn a second language	-.549	- 8.337	.0001
Using cooperative learning in the classroom	-.732	-12.246	.0001
Meeting needs of multi-level English proficiency class	-.334	- 5.163	.0001
Facilitating development of critical thinking	-.334	- 5.163	.0001
Using strategies for process writing	-.420	- 6.239	.0001
Developing strategies for holistic language learning	-.6	- 9.38	.0001
Using alternative, holistic assessment	-.559	- 8.941	.0001
Using appropriate strategies for error correction	-.423	- 6.24	.0001
Using communicative approaches for teaching grammar	-.208	- 2.981	.0031
Using a constructivist approach for teaching reading	-.258	- 3.987	.0001

The negative numbers for the mean values indicate that the professional development instruction was effective since the mean value of scores after instruction in the session, (Y), was greater than the mean value of scores before instruction, (X).. Instruction in all ten topics related to IPQs for adult literacy was effective. In general, the greater the unsigned number the more effective the instruction or the greater the need of the individuals receiving instruction.

A low paired t-value results in a low probability (p). Nine of ten probability values were at the p <.0001 level. This level of significance indicates almost no probability that attitudinal changes were by chance. Participants apparently both felt a need for instruction on each item and, at the end of the session, felt that they had gained useful new understandings. The item *teaching grammar* with a slightly higher probability of p <.005 still falls within a very acceptable level of probability. No doubt, there are complex notions about how grammar should be taught but enough participants learned new ways of looking at grammar instruction to make a meaningful change in the attitudinal score. Overall, pre- and post-assessment data consistently showed statistically significant gains in understanding issues related to a holistic, participatory approach to classroom interaction.

Conclusions

Findings indicate that participants in professional development emphasizing the curriculum and instruction *Indicators of Program Quality* adopted for the Texas State Plan for Adult Education and Literacy found the interactive sessions modelling a participatory approach to be highly useful and effective. Furthermore, significant attitudinal changes occurred in favor of a set of features associated with this approach to adult literacy.

Participants had opportunities to engage collaboratively in identifying themes relevant to their social contexts and to work together in ways that modelled what could be used with their own students. Learning to make meaning together through reading relevant materials, taking part in dialogs while also negotiating meaning, engaging in process writing to publish their own books, finding appropriate ways to correct learner errors, attending to grammar in relevant communicative contexts contributed to an understanding of how adults learn a second language. In developing strategies for holistic language learning and alternative holistic assessment, participants appeared to gain insights into ways that can change the power relationships between teacher and learner to one of co-learners addressing social realities in learners' lives. Because participants were themselves very diverse in their background and experience in adult ESL literacy, all sessions further modelled how to meet classes made up of students at multi-levels of English proficiency.

The orientation to a critical literacy approach used in this project demonstrated how the planning, implementing, and evaluation of programs can be linked to a framework emphasizing a process model of teaching literacy for non-native speakers of English. Centering instruction on modelling a participatory approach for adult literacy through collaborative group investigation and decision-making ultimately gives direction on how to bring about a transformative education to alter power relationships. Students learn to analyze real problems in their own lives and through collaborative critical analysis learn to take action for change. Ultimately the key to successful literacy acquisition rests on the instructional setting offering issues of importance to learners. Literacy acquisition occurs most effectively when it starts with what learners already know, builds on their strengths, engages them in the learning process, and enables them to accomplish something of importance to them. The results of this project indicated that professional development carefully planned can facilitate moving adult literacy instruction in new directions.

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